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In a recent article (Weber, '39) records were brought together of ants found traveling or nesting on ships, mostly in the American tropics. There were nineteen species of which eight were neotropical and ten were well-known cosmopolitan ants. In July 1939, while traveling by steamer up the White Nile River and Bahr-el-Jebel in the Anglo-Egyptian Sudan for 1090 miles, several species of ants were found to be nesting on the ship.

One of these, *Euponera* (*Brachyponera*) *sennaarensis* (Mayr), of the primitive subfamily Ponerinae, is noteworthy. Arnold ('15, p. 74) states that the "economic value of this little species can hardly be overestimated, since it is exceedingly plentiful and preys unceasingly on termites. It is, however, omnivorous, since it will eagerly collect bread-crumbs, insects of all sorts, and seeds of grass." Similarly, Santschi ('35, p. 261) remarks "On ne peut donc mépriser son rôle dans l'économie agricole de l'Afrique tropicale." Throughout the Sudan from Port Sudan to the Nile and south to the Belgian Congo and Uganda borders, this ant was found to be one of the commonest insects, nesting abundantly in many areas. While not often noticed in traveling through Uganda and Kenya, where the elevations were mostly above 3000 feet, it was common at the seaport of Mombasa. Santschi has recorded it several times above 4000 feet but I failed to find it at Nairobi (5400 feet) which has almost a temperate climate. It is indeed omnivorous although insects probably constitute its chief food. A predator, the driver ant, *Dorylus* (*Anomma*) *nigricans* Ill., was observed preying upon the workers at Shambe, Bahr-el-Jebel, Sudan.

No species of ponerine ant has before been re-

corded nesting on ships. While *sennaarensis* commonly is found nesting in soil, its ubiquity about cultivations, railway stations, and other civilized places, together with the record here described, suggests that it has characteristics of a successful tropicopolitan, if not cosmopolitan, species. It may, like the South American *Iridomyrmex humilis* Mayr, be another ant observed in historic times to extend its range. Thus far it appears limited to tropical Africa and Arabia. It was common in the irrigated Arab gardens in Aden, Arabia when I visited this port August 28, 1939. Doubtless it will be found in Suez, Egypt, and could spread through the Suez Canal to Mediterranean ports. Eastward shipping might readily carry the ant to Bombay and other ports which would involve no appreciable climatic change.

On the S. S. Gedid, operating between Khartoum and Juba on the White Nile and Bahr-el-Jebel, the *sennaarensis* nested at the rear of the dining room on the upper (second) deck. Where the outside of the rear wall joined the deck, a sharp right angle was formed which evidently was seldom swept and was not seen washed down as were the side decks. The entrance to the nest was a bare hole several millimeters in diameter in the caulk between two of the deck planks close to the wall. There was no crater; an occasional sweeping or gust of wind would easily carry away the excavated material, if any. As many as fifteen workers were observed within twelve centimeters of the hole at one time. It is probable that the colony was normal in size, amounting to a few score workers. The ants carried particles of food from the dining room, gaining easy access under the screened doors, and also scavenged over much of the decks. Workers were found on the deck below, particularly on the narrow steel platform at the sides, a little above water line. Here they obtained insects and vegetal debris showered on the sides as the steamer would brush against floating islands of papyrus or the river bank itself in the sharp, narrow turns. Workers were seen on the prow at the very water line where a slight scum would occasionally gather. During the 1090 mile journey from July 1 to 14, there was every indication that the colony was securely installed and well adapted to this mode of life.

In addition to the *sennaarensis* nest there were colonies of *Monomorium pharaonis* L. and *Paratrechina longicornis* Latr. installed on the boat. The *Monomorium* workers were occasionally brought in to the table on the bread or were seen on the tablecloth and probably nested in the galley. The *Paratrechina* workers were abundant in my cabin when I came aboard in Khartoum, scurrying in large numbers even over the berth, but their ranks were soon reduced. One of their nesting sites was in an upper corner of the wooden box around the water tank for the wash basin.

Additional Records

An additional record of ship ants is that of *Campanotus* (*Tanaemyrmex*) *britteni* Donisthorpe ('31) from a Bibby Bros. steamer (from Indian Ocean ports) in Liverpool, England. Workers were found "in the wood casing of the refrigerator chamber, causing damage."

Negative Records.—By no means all ships operating in tropical waters carry ants. It appears to take some years for a ship to be seasoned enough for these insects. Search has been made unsuccessfully for ants on several ships, including the following:

M. S. Thorstrand (Norwegian), between Panama and San Francisco. A fast cargo ship commissioned only four months earlier than my passage and carrying only refrigerated fruit.

M. S. Neidenfels (German), between New York and Port Sudan, Red Sea. A fast cargo ship commissioned only four months earlier than my passage and carrying miscellaneous cargo.

M. V. Llangibby Castle (British), between Mombasa and London, August 23 to October 7, 1939. This ten year old passenger and miscellaneous cargo ship was surprisingly free of ants, in the passenger quarters at least. While waiting a week in Gibraltar for Admiralty orders, being in the first British convoy from the East in the war, fresh figs were brought from the shore in baskets which contained live worker ants of the genus *Iridomyrmex*. All seen were collected but not every ship carries a myrmecologist.

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